

UNITED STATES PATENT OFFICE.

ALBERT J. DEXTER, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN COPYING-INKS.

Specification forming part of Letters Patent No. **167,878**, dated September 21, 1875; application filed June 29, 1875.

To all whom it may concern:

Be it known that I, ALBERT J. DEXTER, of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and useful Improved Copying-Ink, of which the following is a specification:

The object of this invention is to make a superior quality of copying-ink, by the use of which two or more distinct impressions or copies can be readily produced without the usual requirements of brush, water, and copying-press. I achieve the said object and resulting advantages by forming my ink, to be composed of nitrate of silver and cloves, in combination with well-known ink ingredients, and prepared in the manner as will now more fully appear.

To make and use my invention, I will now fully describe its process of manufacture.

I take of nut-galls four pounds, and boil the same in one and a half gallon of water. To this decoction I keep adding pure water to produce, say, two and a half gallons of strained fluid. Of pure sulphate of iron I take twenty ounces, and dissolve the same in one-half gallon of warm water. The liquid thus resulting I add and mix with the gall-mixture aforesaid. Of gum-arabic I take twenty ounces, and of "A" or "C" sugar six pounds. Dissolve both these ingredients in one and a half gallon of water. This done, add also to the gall and iron mixture aforesaid. Of nitrate of silver I take four drams. Dissolve in two ounces of water; then add likewise to the pre-

ceding mixture. Next, add to the mixture ten pounds of white glycerine. Finally, take of cloves two ounces, to eight ounces of hot water, and strain it, and add the infusion of cloves to the entire mixture aforesaid.

Instead of first taking the ingredients and mixing them separately, as aforesaid, the ingredients can be mixed all together, after first properly straining such thereof as require straining.

The new effects and advantages of the nitrate of silver for this purpose are that it imparts a black color to the ink, while the infusion of cloves causes the ink to dry and prevents it from molding or losing its virtue. About six gallons of improved ink are thus obtained from the above recipe.

The directions for using the ink are simply to place the writing on an oil-board or blotter, then draw the copying-paper over the letter or writing and rub with the hand, and the required fac-simile is thus had.

What I claim is—

A copying-ink, composed of the ingredients, viz: Nut-galls, sulphate of iron, gum-arabic, sugar, water, glycerine, nitrate of silver, and cloves, all combined substantially as specified.

In testimony of said invention, I have hereunto set my hand.

ALBERT J. DEXTER.

Witnesses:

WILLIAM W. HERTHEL,
JAS. D. VANDERFORD.